

Defense Report

from AUSA's Institute of Land Warfare



RAH-66 Comanche Helicopter—Key to Future Army Warfighting

Introduction. When the issue of military operations is discussed, the American public has become accustomed to hearing phrases such as "not putting our servicemembers in harm's way," "ensuring minimum U.S. casualties," trying to "limit collateral damage," and limiting numbers of airstrikes due to inclement weather "for fear of civilian casualties." These constraints, coupled with serious reductions in modernization programs, have required the U.S. Army leadership to search for effective and efficient solutions through the integration of new technologies with new weapon systems.

Naturally, the cost of so-called high-tech systems suddenly becomes an issue because of the inadequate funding levels for the Department of Defense (DoD). You can blame the cost dilemma on spending caps, or the current administration, or Congress. But ever since the end of the Cold War, the military services have faced personnel and budget reductions that have challenged the ability of military leaders to meet their stated responsibilities to maintain a high state of combat readiness and be prepared to respond to contingency operations at any time and any place in the world. Though DoD has fewer people and fewer dollars, the common defense of the nation remains the highest priority. In other words, the country wants a *smaller, less expensive DoD, but not less defense.*

As a result, the U.S. Army embarked on a mission to conduct Advanced Warfighting Experiments (AWEs), designed to serve as the cornerstone of the future Army XXI. One of the most successful warfighting weapon systems coming on the scene is the **RAH-66 Comanche helicopter**. It will meet the goals of reducing U.S. casualties, limiting collateral damage, operating during periods of inclement weather, and much more. It is a *lethal* weapon system.

The Comanche, projected to be in place by 2010, has a rapid deployment capability and is capable of operating over areas twice the size of Cold War areas of operation. With its system of systems, or Mission Equipment Package (MEP), Comanche employs sensors and digitally transmitted data to allow battlefield commanders to rapidly understand and control the situation. This is *definitely not* just another helicopter. **Comanche is one of the systems that will play a key role in Army concepts for future warfighting and peace enforcement operations.**

Why Comanche? Comanche will render obsolescent the OH-58 Kiowa Warrior and AH-1 Cobra helicopters in the armored cavalry regiments, division air cavalry units and light attack battalions. Comanche brings to the field the latest in emerging technology; a greater helicopter performance; and the vastly enhanced mission capability required to operate on the digitized battlefield.

In accordance with Army doctrine, Comanche's air reconnaissance capability provides the battlefield commander near real-time understanding of the battlefield situation. It can attack selected targets with its organic weapons and in concert with the Apache Longbow and provide situational awareness to the Apache attack team. Concurrently, the Comanche can provide situational imagery/data to tactical and operational commanders.

Comanche is the only armed reconnaissance "system of systems" with the mission equipment technology required for the transition from Army XXI to Army After Next concepts (2020 – 2025); it will have the data links, sensor payload and weapons to be a major player in joint operations. With these capabilities, Comanche will work with U.S. Air Force attack aircraft against mobile launchers, operate with U.S. Navy aircraft to maintain the sea lines of communication, help shape the combined arms

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team fight and provide situational understanding in peacekeeping operations. Growth capabilities will allow increased range and endurance on the 2025 battlefield.

Comanche Experience and Lessons Learned. The Division XXI AWE, conducted 3–13 November 1997 at Fort Hood, Texas, provided valuable insights into Army XXI Fiscal Year 2010 warfighting requirements. Comanche (simulation), employing its “system of systems,” made a significant contribution to the warfight. There were nine RAH-66 Comanche and 15 AH-64 Apache aircraft assigned to the attack battalion and 24 RAH-66 Comanches assigned to the cavalry squadron.

Aviation and artillery were the biggest “killers” on the battlefield. Fewer ground troops were in harm’s way, yet target kill productivity improved. Operating in its armed reconnaissance role, Comanche was able to find targets and relay fire missions to the artillery, as well as provide “surgical removal” of enemy air defenses while operating as scouts for the Apache Longbow helicopters.

Comanche frequently operated up to 200 kilometers (km) into enemy territory. Division battlespace of this size was unprecedented—120 km x 200 km. Two Comanche-equipped air cavalry troops provided 24-hour security and reconnaissance throughout the division area of operations.

Likely Warfighting Scenarios:

- ◆ **Early Entry Operations:** Comanche is an ideal system for a “Desert Shield” type scenario. Three C-5 Galaxy or six C-17 Globemaster aircraft can lift two air cavalry troops with their 24 Comanches to Southwest Asia (example). Comanche gives the joint force commander an armed reconnaissance capability to support force protection while the remainder of the force deploys. Comanche, linked to unmanned aerial vehicles (UAVs), the Joint Surveillance Target Attack Radar System (Joint STARS), and other national intelligence systems, provides near real-time situational understanding. In addition, Comanche provides a target attack capability while operating as a part of a combined arms and joint team consisting of a ground maneuver brigade, attack helicopters, and U.S. Air Force, Navy and Marine Corps attack fighter aircraft.
- ◆ **Major Theater of War Operations:** Comanche provides the commander in chief (CINC) a new capability should any aggressor attempt to invade the Republic of Korea (example). Comanche provides the CINC an adverse weather, day/night armed reconnaissance capability to find, fix and contribute to destruction of targets. Comanche linked to UAVs, attack fighters and artillery provides real-time capability to deal with such threats as mobile rocket launchers, sea-borne infiltrators, and second echelon

mechanized forces. Comanche operates deep within enemy territory to locate mobile SCUD launchers.

- ◆ **Peacekeeping/ Peace Enforcement Operations:** U.S. forces are most vulnerable during initial entry operations. Comanche, operating as an armed reconnaissance force, and linked to airborne sensor systems, e.g., Joint STARS, can rapidly move from a secure base of operation (land or ship) and enter the country ahead of the peacekeeping force. It has the capability to find mobile surface-to-air missile (SAM) launchers, surgically target air defense artillery command and control facilities, and attack other high-value targets with minimum collateral damage. Comanche is ideal for day or night reconnaissance to enforce the peace and develop situational awareness and understanding. It can conduct critical battle damage assessment to determine the extent of target damage warranted. (Such key information would have been invaluable during the recent Desert Fox exercise.) It can store and process data received from other sources, compare that data with data from its own sensors, and provide the commander real-time images to prove violations, or to confirm whether moving vehicles are tanks or school buses. Should the commander elect, the Comanche aircrew, using on-board systems, can coordinate evolving operations.

Comanche—Essential to Army XXI. Preproduction prototype aircraft, so essential to refine tactics, techniques and procedures for the combined arms team, are meeting Army expectations. Comanche aircraft #1 had its first flight in January 1996; as of February 1999 it has amassed 115 flights and 128.4 flight hours, encountering no significant problems to date. The first flight of Comanche aircraft #2 is scheduled for April 1999. The first Initial Operational Test/Evaluation (IOTE) aircraft #7 will arrive in June 2004. Aircraft #7-14 will be available for IOTE. Funds are programmed for aircraft production through FY14, with initial production in FY05 and full production in FY07.

The U.S. Army must have a credible air armed reconnaissance capability for operating over extended distances as envisioned in Army XXI warfighting concepts. Comanche provides a multirole, multimission capability that transcends all operational spectrums of warfare into the next century.

Comanche is on the leading edge of technology growth for the 21st century. There is no capability in the force today that provides the air armed reconnaissance requirements for Army XXI. Comanche fills that void, and will thus be a key system in Army After Next warfighting concepts. It is essential the Comanche development and production program stay on schedule and the production program stays funded to support fielding of the Comanche.

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